

ABSTRACT

A silicon substrate 1 has a structure in which a depression of a silicon crystal is formed on at least one principal surface 2 side of a crystalline silicon substrate and which has a vitreous region 3 filled in the depression and consisting primarily of silicon oxide. The vitreous region 3 is formed so that the glass transition temperature T_g thereof is lower than that of pure silica glass and not more than 900°C . This configuration realizes the silicon substrate in which internal strain is reduced between glass and the silicon crystal, and a forming method thereof.